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Applicant:
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For
System and Method for Inquiry Caching
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Dear Sir:

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on September 8, 2006.

Julie H. Blackard

The USPTO issued a Notice of Non-Compliant Appeal Brief on August 9, 2006 in the above-referenced case. As the only objection to the Appeal Brief was based on 37 C.F.R. 41.37(c)(1)(v), an entire new brief is not required and a paper providing the summary of the claimed subject matter will suffice. See, MPEP 1205.03. Accordingly, attached is a "SUMMARY OF CLAIMED SUBJECT MATTER ACCORDING to 37 C.F.R. 41.37(c)(1)(v)."

The Director of the U.S. Patent and Trademark Office is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-3183 of Sprinkle IP Law Group.

Respectfully submitted,

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SUMMARY OF CLAIMED SUBJECT MATTER ACCORDING to 37 C.F.R. 41.37(c)(1)(v)

Independent Claims 1, 11 and 22 are subject to the present appeal.

Claim 1 recites:

A method of using a router to cache inquiry data corresponding to a target device in a network having a plurality of client devices, the method comprising:

storing inquiry data corresponding to a target device in a cache memory;

receiving a request for the inquiry data corresponding to the target device;

reading the inquiry data from the cache memory; and providing the inquiry data corresponding to the target device in response to the request.

The recited invention, according to Claim 1, is a method of using a router to cache inquiry data corresponding to a target device in a network having a plurality of client devices. The method performs the steps of "storing inquiry data corresponding to a target device", "receiving a request for the inquiry data", "reading the inquiry data from the cache memory" and "providing the inquiry data corresponding to the target device in response to the request."

Claim 1 provides "a method for caching inquiry data for a target device in a network having a plurality of client devices." A plurality of example client devices (labeled 21-23 in FIGURE 2, labeled 33 in FIGURE 4) are connected via a network (labeled 24 in FIGURE 2, labeled 32 in FIGURES 3 and 4), such as a Fibre Channel or other network, to a router (labeled 25 in FIGURE 2, labeled 31 in FIGURES 3 and 4). See Application ¶0022, page 3, lines 32-34. Data and commands from the multiple client devices are directed to a target device (shown as 27 in FIGURE 2, labeled 32 in FIGURES 3 and 4) by the router 25/31. See Application ¶0022-23, page 4, lines 35-40. One type of data that can be requested by clients is inquiry data. Inquiry data is data that "typically relates to the device itself, rather than data which [it] is designed to store or generate" and is generally static data such "as serial number, manufacturer, configuration, version number, or similar data" but "may also include data that changes relatively infrequently." See Application ¶0005, page 1, line 28 through page 2, line 4. Thus, embodiments of the present invention include a method implemented at a device that routes data between multiple clients and a target device.

The method includes "storing inquiry data corresponding a target device in a cache memory." For example, the router 25/31 can include a cache memory 28 to store inquiry data

corresponding to target device 27/32. See Application ¶0024, page 5, lines 6-7. When the router 25/31 receives inquiry data corresponding to the target device 27/32 (i.e., data about the target device as described at Application ¶0005, page 1, line 28 through page 2, line 4), the router stores the inquiry data in its cache memory 28. See Application, ¶0029, page 6, lines 20-22. The flow of data to a cache is illustrated by the dashed data line in FIGURE 3.

A client can issue a request for the data corresponding to the target device as illustrated by inquiry command 36 of FIGURE 3. The inquiry command, as shown in FIGURE 3 by the flow of command 36, is received by router 25/31. Thus the method further includes "receiving a request for the inquiry data corresponding to the target device."

The method further includes "reading the inquiry data from the cache memory" and "providing the inquiry data corresponding to the target device in response to the request." As described in the Specification, "when the router receives the command from the host device . . . the router will respond to the request if possible . . . If the data is stored in the cache, the data is read from the cache." See Application, ¶0030, page 6, lines 28-32. The inquiry data read from the cache is "forwarded to the host device in response to the inquiry command." See Application ¶0030, page 6, lines 38-39. Thus, when the router receives an inquiry command or other request for inquiry data directed to a target device, the router can return the inquiry data corresponding to the target device to the client in response to the command or other request for inquiry data.

Embodiments of the present invention thus include a method implemented on a router to respond to inquiry commands. As shown in FIGRUE 2, a router routes commands, including inquiry commands, from clients to target devices. See Application ¶0023, page 4, line 39 through page 5, line 4. The router is coupled to a cache" which is "designed to store inquiry data" associated with a target device. See Application ¶0024, page 5, lines 6-7. When a router receives a request for inquiry data for a target device, the router can forward the inquiry command to the target device. See Application ¶0029, page 6, lines 18-19. "After the target device processes that command, it provides data responsive to the command. See Application ¶0029, page 6, lines 19-20. The router "stores the data in its cache." See Application ¶0029, page 6, lines 20-21. Thus, the inquiry data corresponding to the target device is stored in the cache memory of the router.

When the router receives a request for the inquiry data corresponding to the target device, the inquiry data "is read from the cache and then forwarded to the host device in respond to the inquiry command." See Application ¶0029, lines 28-30. Because the inquiry data corresponding to the target device can be retrieved from the cache memory, the request for the inquiry data can be serviced from the cache even if the target device is busy.

Claim 11 recites:

A device comprising:
a router configured to route data between one or more hosts
and one or more target devices; and
a cache memory coupled to the router;
wherein the router is configured to store inquiry data
received from the one or more target devices and to
provide at least a portion of the stored inquiry data in
response to a request for inquiry data corresponding to
one of the target devices that is busy.

Claim 11 recites a device comprising "a router configured to route data between one or more hosts and one or more target devices." A plurality of host devices (labeled 21-23 in FIGURE 2, labeled 33 in FIGURE 4) are connected via a network (labeled 24 in FIGURE 2, labeled 32 in FIGURES 3 and 4) to a router (labeled 25 in FIGURE 2, labeled 31 in FIGURES 3 and 4). See Application ¶0022, page 3, lines 32-34. Although shown as Fibre Channel hosts on a Fibre Channel network, the host devices can be other types of host devices connected to the appropriate network. Data and commands from the multiple host devices are directed to one or more target devices (an example target device is shown as 27 in FIGURE 2, and shown as 32 in FIGURES 3 and 4) by the router 25/31. The router 25/31 can be coupled to a cache memory 28 to store inquiry data associated with target device 27/32. See Application ¶0024, page 5, lines 6-7.

The router of Claim 11 is configured to store inquiry data from the one or more target devices. Inquiry data is data that "typically relates to the device itself, rather than data which [it] is designed to store or generate" and is generally static data such "as serial number, manufacturer, configuration, version number, or similar data" but "may also include data that changes relatively infrequently." See Application ¶0005, page 1, line 28 through page 2, line 4. When the router 25/31 receives inquiry data corresponding to the target device 27/32 (i.e., data about the target device as described at Application ¶0005, page 1, line 28 through page 2, line

4), the router stores the inquiry data in its cache. See Application, ¶0029, page 6, lines 20-22. The flow of inquiry data to a cache is illustrated by the dashed data line in FIGURE 3.

The router is further configured "to provide at least a portion of the stored inquiry data in response to a request for inquiry data corresponding to one of the target devices that is busy." As described in the Specification, a client can issue a request for the inquiry data corresponding to the target device as illustrated by inquiry command 36 of FIGURE 3 that is received by router 25/31. When the router receives the command and "the target device is busy, the router will respond to the command if possible." See Application, ¶0030, page 6, lines 34-35. The inquiry data "is read from the cache and then forwarded to the host device in response to the inquiry command." See Application ¶0029, lines 28-30. Thus, in response to the request for inquiry data to a busy target, the router provides the appropriate inquiry data from the inquiry data stored in its cache.

Claim 22 recites:

A computer readable medium, wherein the computer readable medium contains one or more instructions which are configured to cause a computer to perform the method of using a router to cache inquiry data corresponding to a target device in a network having a plurality of client devices, the method comprising: storing inquiry data corresponding to a target device in a cache memory; receiving a request for the inquiry data corresponding to the target device; reading the inquiry data from the cache memory; and providing the inquiry data corresponding to the target device in response to the request.

Claim 22, thus includes instructions for "storing inquiry data corresponding to a target device", "receiving a request for the inquiry data", "reading the inquiry data from the cache memory" and "providing the inquiry data corresponding to the target device." The computer instructions can be, for example, "a software application (and/or media on which the application is stored) for controlling a router or other device" to provide desired functionality." See Application, page 8, lines 16-20.

The instructions are configured to cause a computer to perform the method of using a router to cache inquiry data corresponding to a target device in a network having a plurality of client devices. . ." A plurality of client devices (labeled 21-23 in FIGURE 2, labeled 33 in

FIGURE 4) are connected via a network (labeled 24 in FIGURE 2, labeled 32 in FIGURES 3 and 4) to a router (labeled 25 in FIGURE 2, labeled 31 in FIGURES 3 and 4). See Application ¶0022, page 3, lines 32-34. Data and commands from the multiple client devices are directed to a target device (an example target devices is shown as 27 in FIGURE 2 and as 32 in FIGURES 3 and 3) by the router 25/31. See Application ¶0022-23, lines 35-40. One type of data that can be requested by clients is inquiry data. Inquiry data is data that "typically relates to the device itself, rather than data which [it] is designed to store or generate" and is generally static data such "as serial number, manufacturer, configuration, version number, or similar data" but "may also include data that changes relatively infrequently." See Application ¶0005, page 1, line 28 through page 2, line 4. Thus, embodiments of the present invention include instructions to cause a computer to perform the method at a device that routes data between multiple clients and a target device to cache inquiry data that is data about the target device itself.

The method performed includes "storing inquiry data corresponding a target device in a cache memory." For example, the router 25/31 can include a cache memory 28 to store inquiry data associated with target device 27/32. See Application ¶0024, page 5, lines 6-7. When the router 25/31 receives inquiry data corresponding to the target device 27/32 (i.e., data about the target device as described at Application ¶0005, page 1, line 28 through page 2, line 4), the router stores the inquiry data in its cache memory 28. See Application, ¶0029, page 6, lines 20-22. The flow of data to a cache is illustrated by the dashed data line in FIGURE 3.

A client can issue a request for the data corresponding to the target device as illustrated by inquiry command 36 of FIGURE 3. The inquiry command, as shown in FIGURE 3 by the flow of command 36, is received by router 25/31. Thus the method further includes "receiving a request for the inquiry data corresponding to the target device."

The method further includes "reading the inquiry data from the cache memory" and "providing the inquiry data corresponding to the target device in response to the request." As described in the Specification, "when the router receives the command from the host device . . . the router will respond to the request if possible . . . If the data is stored in the cache, the data is read from the cache." See Application, ¶0030, page 6, lines 28-32. The inquiry data read from the cache is "forwarded to the host device in response to the inquiry command." See Application ¶0030, page 6, lines 38-39. Thus, when the router implementing the method according to the computer instructions receives an inquiry command or other request for inquiry

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data to a target device, the router can return the inquiry data corresponding to the target device to the client in response to the command or other request for inquiry data.